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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,178	11/25/2003	James Stephen Mason	GB920020058US1	7003
50548	7590	10/04/2005	EXAMINER	
ZILKA-KOTAB, PC P.O. BOX 721120 SAN JOSE, CA 95172-1120			NGUYEN, HAI L	
			ART UNIT	PAPER NUMBER
			2816	

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

AK

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,178	<b>Applicant(s)</b> MASON, JAMES STEPHEN	
	<b>Examiner</b> Hai L. Nguyen	<b>Art Unit</b> 2816	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 14 July 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 4-7 is/are allowed.
- 6) ☒ Claim(s) 1-3 and 8-15 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 November 2003 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## **DETAILED ACTION**

### ***Response to Amendment***

1. The amendment received on 7/14/2005 has been reviewed and considered with the following results:

As to the objection to the specification, Applicant's amendments have overcome the objection, as such; the objection has been withdrawn.

As to the objection to claim 11, Applicant's amendments have overcome the objection, as such; the objection has been withdrawn.

As to the prior art rejections to claims 1-3 and 8-11, Applicant's arguments with respect to the prior art rejections by the previous office action mailed on 04/20/2005 have been fully considered but are not deemed to be persuasive. Therefore, the prior art rejection is maintained. The arguments supporting the previous rejections are addressed in detail below.

### ***Drawings***

2. Figure 1 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). Corrected drawings in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

***Claim Rejections - 35 USC § 103***

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 and 8-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over the admitted prior art (APA), Fig. 1 in the present application, in view of Welland (US 6,483,390; previously cited).

With regard to claims 1 and 10, the admitted prior art in Fig. 1 shows a semiconductor Type Two phased locked loop filter, and a method of use thereof, having a passive capacitor part (C1, C2) and an resistor part (R1). Fig. 1 of the prior art meets all the claimed limitations except that the resistor part is a passive resistor instead of an active resistor as recited in the claim. Welland teaches in Figs. 17A-17B a circuit having active resistor (1702), which is integrated with the passive capacitor (C1, C2), as a variable resistance device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to utilize that teaching of Welland in the prior art (Fig. 1) by replacing the passive resistor of APA with the active resistor taught by Welland for the advantage of being able to tune the filter circuit.

With regard to claims 2-3 and 8, the references (Welland) also meet the recited limitations in these claims.

With regard to claim 9, the admitted prior art in Fig. 1 shows a semiconductor phased locked loop system comprising a charge pump; a voltage controller oscillator; and a Type Two

Art Unit: 2816

filter comprising a passive capacitor part (C1, C2) and a resistor part (R1). Fig. 1 of the prior art meets all the claimed limitations except that the resistor part is a passive resistor instead of an active resistor as recited in the claim. Welland teaches in Figs. 17A-17B a circuit having active resistor (1702), which is integrated with the passive capacitor (C1, C2), as a variable resistance device. Therefore, it would have been obvious to one of ordinary skill in the art at the time of applicant's invention was made to utilize that teaching of Welland in the prior art (Fig. 1) by replacing the passive resistor of APA with the active resistor taught by Welland for the advantage of being able to tune the filter circuit.

With regard to claim 11, the references (Welland) also meet the recited limitation in the claim. Since there is no special step for manufacturing of resistor components is disclosed.

With regard to claim 12, the recited limitation "a resistance of the active resistor is controlled by a feedback loop coupled to an input of the active resistor" is also met by the references (see Figs. 4-5 of Welland).

With regard to claims 13-15, the references (Fig. 1 of the APA) also meet the recited limitation in these claims.

### ***Response to Arguments***

5. Applicant's argument is that "Applicant respectfully disagrees that the combination proposed in the rejection anticipates the claimed invention. Particularly adjustable capacitance circuits of the type disclosed in Welland's FIGS. 17A-C are discussed in the background of the present application as undesirable. The configuration proposed by Welland adjusts the capacitor closest to ground by allowing current to pass to ground. As mentioned on p. 2, line 17 to p. 3,

Art Unit: 2816

line 10 of the present application, adjusting this capacitor alone can undesirably affect the gain of the PLL system. Likewise, the APA circuit shown in FIG. 1 of the present application is difficult to tune without adjusting other gain parameters.” is not persuasive because there is no such combination proposed in the rejections to the claims. Therefore, no need to discuss that argument.

### ***Allowable Subject Matter***

6. Claims 4-7 are allowed.

The prior art of record fails to disclose or fairly suggest a semiconductor Type Two phased locked loop filter, as recited in claim 4, having specific structural limitations such as a regulator circuit (U1, U2, T2, Iref), wherein the Type Two phased locked loop filter operates from a voltage (From Charge Pump/ To VCO) and the active resistor part (T1) is controlled by a regulator circuit operating from a voltage (Vref) that follows the type two phased locked loop voltage, and being configured in combination with the rest of the limitations of the base claims and any intervening claims.

### ***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period

Art Unit: 2816


will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hai L. Nguyen whose telephone number is 571-272-1747 and Right Fax number is 571-273-1747. The examiner can normally be reached on Monday-Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Timothy Callahan can be reached on 571-272-1740. The official fax phone number for the organization where this application or proceeding is 703-872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-1562.

9. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HLN   
October 2, 2005

  
TIMOTHY P. CALLAHAN  
SUPERVISORY PATENT EXAMINER  
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